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CONDITIONS FOR USING STRATEGIC AIR POWER

AGAINST THE WILL OF AN ENEMY

by

Connee Lloyd
Lt Col, USAF

A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE CURRICULUM

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ABSTRACT

TITLE: Conditions for Using Strategic Air Power Against the Will of an Enemy

AUTHOR: Connee Lloyd, Lieutenant Colonel, USAF

There is little historical evidence that air power can affect the will of an enemy. The concept is nevertheless accepted as part of Air Force doctrine and by the political leadership of this country. It is therefore necessary to contemplate conditions that must exist if strategic air power is to be successfully used to affect the will of the enemy.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Connee Lloyd (M. B. A., University of Utah) developed an interest in the strategic application of air power while a student at the Air War College. She has served in a variety of wing and headquarters level positions including command of two tactical aircraft maintenance squadrons. She is a graduate of the Armed Forces Staff College and the Air War College, class of 1993.

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SECTION 1

INTRODUCTION

The notion that air power could be used to destroy an enemy's will to wage war surfaced in the late nineteenth century. Use of air power as a weapon was envisioned before airplanes flew. Air power prophets foresaw the use of air fleets over an enemy capital as a weapon that would be unstoppable. These air fleets would be more than just a show of force. If an enemy did not surrender immediately, his capital would be bombed, a condition thought sure to crush enemy will. Other early air power advocates proposed bombardment of armies or civilian population centers as the initial act of war, forcing concessions from the enemy before armies could do battle. If the protagonist's army was used, it would be to defend territory while aircraft took the offensive role by bombing the enemy population into surrender. Thus air power was envisioned as an entirely new way to wage war. It would be swift and bereft of the carnage of previous wars because it did not require massive armies fighting battle after battle until one army was destroyed. Air power would strike at the will of an enemy instead of his army.

In the one hundred years since the first air power theories were written, few examples can be found where the use of air power affected enemy will to the level expected by air power advocates. One reason for this is that air power was often not technically capable of performing the actions prophesied by its advocates. Another reason is that political and military leaders were unwilling to depend on air power when other military options were available. Perhaps most important, targets identified as key to destroying enemy will were either too difficult to destroy or just didn't have

the anticipated influence on national will. The demoralizing impact of a strategic air attack proved difficult to induce.

In spite of little historical evidence supporting the concept that air power can affect an enemy's will, the idea continues today as a fundamental part of Air Force doctrine. Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force, issued in March, 1992 states that strategic attacks can be used to destroy or neutralize an enemy's will to wage war. (1: 11-12; 2: 148-160) The concept also seems to be accepted by American political leaders. President Reagan used air power in 1986 to coerce Libya into curtailing its support of terrorists. In the last year there have been inquiries by politicians as to how air power could be used to influence peacemaking efforts in Bosnia. (3: 66-68)

If we accept the premise that air power can be used to affect enemy will, then it becomes necessary to determine what conditions must exist for air power to be used effectively for this purpose. By analyzing conditions for affecting enemy will, generalizations can be drawn about appropriate air power targets, capabilities, limitations, and methods. These are, clearly, subjects that must be articulated to the political leadership of the country by the senior military advisors--once the military discovers what they must articulate.

This paper begins by accepting the premise that air power can be used to affect enemy will. In this context, enemy will is defined as the will of the government or of the population. This paper will not discuss affecting the will of enemy military forces in a tactical sense on the battlefield. The first section provides background on the development of the concept that air power can affect enemy will. The second section reviews some uses of air power since the 1930s. The final section proposes some conditions that should be considered if air power is to be successfully used to affect enemy will.

SECTION 2

THEORIES OF EARLY AIR POWER ADVOCATES

In his book The Development of Air Doctrine in the Army Air Arm 1917-1941, Thomas Greer characterizes the development of air power doctrine as a story of unprecedented intellectual achievement, involving imagination, stern logic, and new patterns of thought. (4: vii) He says air power theorists developed doctrine for air employment in terms of general capabilities of the weapon, without restricting themselves by national policy, possible allies, or existing aircraft equipment. (4: 53) It is useful to review these early theories of how air power might be used to affect enemy will.

The idea that air power would determine the outcome of wars was foreseen ten years before the first flight of the Wright Brothers' airplane. Major J. D. Fullerton of the British Royal Engineers predicted that military battles would be fought primarily in the air, and campaigns would be concluded by the arrival of aerial fleets over an enemy capital. (5: 627) In 1907, Lt Benjamin D. Foulois predicted in his thesis for the Army Service School at Fort Leavenworth that large aerial fleets would operate well in advance of ground troops and that the first engagements at the outbreak of war would be between the aerial fleets of opposing forces. The political leaders of this era also anticipated an important role for air power. The First Hague Conference setting conventions for war adopted a moratorium on aerial bombardment. At the Second Hague Conference in 1907, the proposal to extend that moratorium was rejected by all major powers except the United States and Great Britain. (6:16-17)

The first days of World War I were marked with numerous false alarms of hostile aerial raids on civilian populations. German bombing attacks using Zeppelins against

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England, aimed at weakening the country psychologically, did not begin until January, 1915. (6:18) Airplanes began bombing London in 1917. While damage was minor, the effect on morale, particularly that of the government, was major. (7:52) Popular dissatisfaction with the inability of the air defenses to cope with the attacks led to a reorganization of the British air forces, transfer of aircraft from the war front to protect the British homeland, and initiation of attacks on German cities. Maj Gen Hugh Trenchard, head of the British air forces, recognized his limited air forces would be unable to cause major physical destruction but estimated that the ratio of the effect of his bombardment program on morale to material destruction was twenty to one. In a further attempt to undermine German civilian will and the government itself, he planned for air attacks on Berlin but the war ended before these attacks began. By the end of the war, Italy had used Caproni biplanes to bomb Austrian factories and the American Air Service was developing plans for bombardment of German factories and cities. (4:9-11; 6:20-26) World War I ended before the impact of strategic bombardment on enemy will and the war overall could be proven.

After World War I, advocates of air power worked to frame doctrine for its use. Concepts developed by Antoine-Henri Jomini and Alfred Thayer Mahan in the previous century had a powerful impact on air power advocates of this era. Jomini proposed that wars could be won without a decisive battle between armies or navies. He advocated using force against the "decisive point" of an enemy, the point which, if lost, would imperil or ruin the enemy. This point did not have to be an enemy's army; it could be a road, communication center or supply point. The decisive points for navies, according to Mahan, were ports and freedom of sea trade. Air power theorists also adopted the concept that there was a decisive point for defeating an enemy other than defeat of his army. The decisive points according to air power theorists were the morale and economy of an enemy. (5:154; 181-182)

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Capt Giulio Douhet was one of the earliest air power theorist to be published. He believed that armies would be stalemated in future wars as they had been in World War I and only through air power would wars be won. His works centered on the necessity of obtaining command of the air, after which the air forces could destroy the enemy by attacking transportation lines and population centers. (6:38-39) Some of his assumptions were: (1) civilian morale would quickly crumble as a result of bombardment; (2) victory based on air power would be swift and complete; and (3) air defense would be useless because the war would be over before the defenses could effectively attrit the offensive forces. Based on his assumptions, Douhet concluded that the nation that commanded the air would win the war and therefore all resources should be dedicated to offensive air power, with the army and navy allocated only enough to maintain an adequate defensive posture. (7:11-12)

The leading American air power theorist after the World War I was Brig Gen William Mitchell. He developed many of his theories based on first-nand experiences in World War I and discussions with Italian, French, and British aviators. Mitchell agreed with Douhet that future wars would be won quickly using air power. He had observed the impact bombing had on the French population, and recounted in Memoirs that the women and children were paralyzed with fear. He too predicted the civilian population would not stand up under attack, particularly when gas bombs were used. He speculated that it would take several generations before people would become as used to fighting in the air as they were to fighting on the ground and on the sea. (8: 84-85). He wrote that the entire enemy nation should be considered a combatant force, and even women, children and others that could not carry arms would be attacked in war. The enemy had to be rendered incapable of supplying the armed forces and discouraged from any desire to renew combat at a later date. Air power would eliminate the tedious and expensive process of wearing down enemy

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surface forces since the air forces could fly over armies and navies and attack the heart of a nation. Interior destruction could be achieved in a short time, instead of the years of fighting between armies. (4:17-18)

The concept of striking at the civilian population rather than at the enemy's army was not limited to the aviation theorists. Capt Basil H. Liddell-Hart, a leading military theorist of the era concluded that there had to be a better method of waging war than pitting massive numbers of soldiers against each other on a static front. The scale of destruction experienced during World War I led him to believe that in this type of war even the winners were losers. He concluded that an enemy's will could be conquered by methods other than frontal assaults between armies. He wrote that disturbing the normal life of a people would compel them to accept the lesser evil of surrender. He too believed the civilian population of a nation was incapable of sustaining a fight to the death. (4: 19)

General Mason M. Patrick built on Liddell-Hart's conclusions during his tour as Chief of Air Service in the mid-1920s as he argued for air power. He suggested air power was the perfect weapon for waging this new type of war since aircraft could fly over enemy armies and strike at the heart of the enemy, including its people and government. (4:19-20; 6:49) This concept of striking at the enemy morale was taught at the Air Corps Tactical School. The 1926 text for the course "Employment of Combined Air Force" stated that the aim of war policy was to destroy the enemy morale and will to resist, not the enemy armies. Only if the will of the enemy could not be destroyed at the outbreak of war should air force objectives be the destruction of the enemy's military strength. (4:46-48)

The morality of attacking civilians was not completely accepted by American civilian or military leaders. Secretary of War Newton D. Baker stated in 1919 that bombing the civilian population should not be done for ethical and humanitarian

reasons; that it had no appreciable effect on the war making ability of the attacked nation; and that it would prove to be a powerful aid to recruitment. His sentiments were shared by many air power advocates, especially in the 1930s. One effect of this ethical concern was to encourage the development of precision bombing instead of area bombardment. (4:14-15) Another effect was to emphasize destroying the economic and national structure of an enemy with destruction of enemy will as a byproduct. During the early 1930's, a group of officers at the Air Corps Tactical School began work on an idea that destruction of a few key systems would so paralyze the economy that an enemy would be unable to produce war materials and the population would be so disrupted that it would sue for peace. (4: 58) By the end of the 1930s, the concept of attacking an enemy's national economic structure was fully developed and the concept of direct attacks on an enemy population was largely abandoned for practical as well as moral reasons. By attacking the national economic structure, it was thought that pressure could be placed on both the war producing capability and the civilian population at the same time. Even if the effects on the population were temporary, the effects on the economy would be lasting. (4: 115; 9: 51-65)

SUMMARY

From the first air power theorist through those in the 1930s, several themes are present in their work. Each saw air power as a new type of warfare which reduced the need for armies to fight head to head. This absence of big ground force battles would result in wars of short duration. They also foresaw that war would be fought with civilians as targets as well as soldiers. Because civilians were not accustomed to war, their will would quickly crumble, again supporting the idea that wars fought with air power would be over quickly. One concept that changed over time for the American theorists was how the will of an enemy should be attacked. From the initial idea of

direct attacks on population centers and capitals, the Americans developed a doctrine of indirectly attacking enemy will by directly attacking his national economic structure. The next section will review some of the conflicts that took place after 1935, giving an indication of how accurate air power predictions were.

SECTION 3

SELECTED CONFLICTS USING AIR POWER AFTER 1935

In the twenty years after World War I, every major country developed an air force. Not all countries developed doctrines for the strategic use of air power. Germany and Japan for instance, tied their air forces to their armies, emphasizing tactical uses of air power. This section describes conflicts that provide lessons in the use of strategic air power and therefore does not cover all conflicts utilizing air power. It should be recognized that most published analyses of these conflicts are from an American perspective. Only if both parties to a conflict publish their own versions of the conflict can a truer picture be seen.

MUNICH

In 1938, the United States and the rest of the world observed first hand the impact air power, or rather the threat of air power. As Germany, France, and England moved towards a crisis over German territorial expansion, it became obvious that the strength of the German air force in relation to the air forces of France and England was the decisive factor in the concessions on Czechoslovakia made at Munich to Germany. Munich exemplified the predictions of early air power writers who foresaw that the appearance of enemy aircraft over a nation's capital would be sufficient to cause that government to surrender. In the case of Munich, the German aircraft didn't need to leave the homeland to impact the will of France and England to abandon their obligations to Czechoslovakia. Neither country was willing to subject its people to a war with the airpower of Germany when they had ineffective defenses. (4:103; 10:67-71) Munich had another impact, that of spurring Germany's future adversary, the

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United States, to embark on a massive aircraft production program so that it would never be held hostage to the threat of air power. (11:213-214; 12:19-21)

WORLD WAR II—GERMANY

The agreement of the allies that the objective of World War II was the unconditional surrender of Germany freed the allies from political restrictions on the use of air power. Agreement was reached at Casablanca in 1943 that a strategic bombing offensive would be part of the total Allied effort to defeat Germany. Lt Gen Ira Eaker stated that American attacks would not be aimed at the "man in the street," and accordingly American strategic bombing concentrated on precision attacks of industrial targets aimed at destroying the German war making capability. British mass bombing attacks, flown mostly at night, targeted the morale of the industrial workers. After the December,1944 attack in the Ardennes area showed that the Germans still possessed both the will and capability for offensive action, American strategic bombing efforts increasingly emphasized targets that would impact the will of the German people. Although targets were still directly related to war making capacity, by February of 1945 targets were located in close proximity to large population areas and the purpose was to increase the confusion and panic in the cities. Targets in Berlin for example were frequently located in the heart of the city. One attack on a government building caused collateral damage killing 25000 people. (13: 4-12; 14: 115-117)

The results of the bombing offensive on German morale was explored by Strategic Bombing Survey Teams at the end of the war. They reported the German people showed a surprising resilience to the terror and hardships of repeated air attacks. Although the Germans indicated growing dissatisfaction with their leaders and decreasing confidence as to a satisfactory end to the war, they continued to work efficiently as long as they possessed the physical means to do so. Additionally,

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although they wanted the war to end, there was little overt political opposition to the government. (15:10-12; 34-42)

WORLD WAR II--JAPAN

The first air attack on Japan was the Doolittle raid in April 1942. While causing little actual damage, the raid on Tokyo alerted the Japanese leadership to their vulnerability to air attack. It was instrumental in causing Japan to reevaluate its defensive perimeter, a move which substantially increased its logistical and defensive problems. There was no indication that it had any lasting impact on the Japanese will to continue the war. (15: 50-56)

The initial American air power strategy for Japan was the same as for Europe-- precision attacks against industrial targets to destroy Japanese capability to make war and indirectly Japanese will to support the war. Attacks flown from November 1944 to March 1945 against the Japanese homeland had little effect because Japanese industry consisted of many small factories rather than large industrial areas. Maj Gen Curtis LeMay directed a new strategy in March 1945, one focused primarily on the will of the Japanese people. He directed attacks on the four primary Japanese cities using incendiary munitions aimed against the highly flammable wooden structures that comprised most urban buildings. His goal was to burn out the cities. Fifteen square miles of Tokyo were destroyed in the first night. Similar attacks were launched on 65 other cities. The civilian casualties resulting from air raids on the population centers from March to August exceeded Japanese combat casualties for the entire war. The Strategic Bombing Survey Teams noted a decline in the morale of the Japanese people that was attributed to the air attacks; however as in Germany, this decline did not result in open opposition to the government's war policies. Although the people lost faith in their leaders, they were still loyal to the Emperor and would have probably

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remained so. The bombing did have an effect on the leadership of the country. When
it became obvious that the military could not protect the homeland, hardline military
leaders were removed and the new Supreme War Direction Council sought ways to
end the war. (13: 6-12; 14:118-120; 15: 82-107; 16: 72)

KOREA

Unlike World War II, the American political leadership did not support a policy of
total war against North Korea. Instead, limitations were initially placed on the conduct
of the strategic air war. These limitations changed as the political objectives changed.
Direct attack against North Korean will by targeting cities and food production were
forbidden by the political leadership. Some military leaders such as Gen LeMay
advocated firebombing North Korean cities as he had done to Japan. (16: 86-89) But
other military leaders were reluctant to target the civilian population, believing that
military and industrial targets should be attacked instead. Towards the end of the
conflict, direct attacks against civilian targets were authorized as new ways were
sought to pressure North Korea into a peace settlement. Targets included cities and
dams to flood rice fields. Attacks against these targets as well as a threat by President
Eisenhower to use nuclear weapons are credited with breaking the stalemated
armistice talks in June 1953. (13: 12-25; 17: 41-45)

VIETNAM

In Vietnam, the United States used conventional war strategies against an
enemy using guerrilla war strategies. The importance of affecting the will of an enemy
was well understood by North Vietnamese leaders. They knew they could not defeat
the United States militarily. Their strategy followed the premise of Mao Tse Tung that
as long as the population can be made to resist surrender, that resistance could be

turned into a war of attrition which guerrilla forces would inevitably win. Thus North Vietnam targeted American political will. The conventional strategy of the United States was to destroy North Vietnam's capability to make war by targeting its industrial and economic base, assuming its will to make war would die once the means were no longer available. (18:126-137) Henry Kissinger summed the war up as follows:

> We fought a military war; our opponents fought a political one. We sought physical attrition; our opponents aimed for our psychological exhaustion. In the process, we lost sight of one of the cardinal maxims of guerrilla warfare: the guerrilla wins if he does not lose. The conventional army loses if it does not win.
> (18:135-136)

The conduct of the initial strategic air war in Vietnam was intertwined with the political goals of President Johnson and his senior national security advisors. Those goals were an independent and stable South Vietnam free from externally directed aggression and preventing the entry of China and the Soviet Union into the war. (13: 40-42) To a larger extent than any previous war, the use of strategic air power reflected personal involvement of the American political leadership. Military leaders were ordered to design a strategic air campaign that would produce a variety of effects including the destruction of the morale of the Viet Cong cadres, imposition of a tax on North Vietnam for supporting insurgency in the south, and creation of conditions supporting a favorable settlement. Various plans were created but none could satisfy a political leadership that could not agree on whether the purpose of the bombing was to destroy the enemy capability to wage war, destroy the enemy will to wage war, or force the enemy into a negotiated settlement. (13: 39-115) Military leaders targeted the industrial and military capability of North Vietnam. They avoided targeting civilian population centers or irrigation dams that would have a direct impact on the population. Rolling Thunder, originally designed to take 16 days, began in March 1965 and continued at various levels of intensity for three years. The political

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leadership directly controlled the level, frequency and target selection of the bombing campaign. In its three years, Rolling Thunder did not significantly constrain the North Vietnamese capability nor will to support the war in the south. Although much of the industrial capability in areas such as petroleum, oil and lubricant (POL) storage, power generation and transportation was destroyed, the requirements of the North Vietnamese war economy were so small that the destruction had little impact. The leadership of North Vietnam rallied the population behind a determined resistance to the bombing, a task made easier by the relatively low death toll, an estimated 52,000 people of a population of 18 million. (13: 117-146; 17:84-86, 106-113; 19: 9-50)

The Linebacker I air campaign started in May 1972 and had a fundamentally different character than Rolling Thunder. The North Vietnamese were now using conventional rather than guerrilla strategies and therefore were more sensitive to losses of war material like POL and electricity and disruptions of the transportation network. Additionally, North Vietnamese leaders were growing older and wanted to see a successful completion of the war before their death. The United States objective had changed from keeping the North Vietnamese out of the south to a negotiated settlement for American withdrawal. Additionally, the threat of intervention by China or the Soviet Union had been largely neutralized. Finally, the skill of American negotiators and American understanding of the enemy had increased. Targets selected by the military leadership again reflected the strategy of destroying the enemy's industrial and military capability to wage war. When Linebacker I ended in October 1972, it had destroyed the North Vietnamese military capability to launch an offensive against the south in the near future and garnered some concessions in the peace negotiations. Yet a conclusion to the negotiations could not be reached. The North Vietnamese stalled the peace negotiations waiting for American political support to weaken. (13: 147-176; 19: 51-68)

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President Nixon's objective for Linebacker II was to destroy North Vietnamese will to continue fighting as Linebacker I had destroyed their military capability to fight. He ordered massive bombing in December 1972 aimed at maximum psychological impact on the will of the enemy. The military leadership chose targets to inflict maximum civilian distress with minimum casualties. Targets were in close proximity to population centers and the bombing continued around the clock. Anti-aircraft defenses around the population centers were destroyed, leaving them helpless against further bombing. The North Vietnamese leaders were impressed with both the destructiveness and intensity of the bombing offensive. Linebacker II ended after 11 days; the final negotiations were signed less than a month later. (13: 177-202; 17:88,106-111; 19:68-78)

DESERT STORM

U. S. News and World Report labeled Desert Storm as the ultimate test of air power, the test of whether real wars could be won in the sky. It said the target list was designed to crush the enemy's power to make war and his will to resist. (20: 28) In one of several articles written during Desert Storm, former Air Force Chief of Staff General Michael Dugan said that before air power war meant the army fought through an enemy country to the capital and made life so miserable that the prince capitulated or the hungry people threw him out. He then wrote that the Iraqis, seeing ten years of industrial progress destroyed by war planes, should see that their life was being made miserable. (21:28) Two years after Desert Storm, two observations can be made. First, the Iraqis did not invade Saudi Arabia and were ejected from Kuwait, and air power played a significant role in the success of the campaign. Second, Iraq still presents a significant threat in the region, possessing both the capability and the will to

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endanger peace in the area. Desert Storm will not be discussed further for two reasons. First, current military leaders caution that Desert Storm is not a good example of how wars are expected to be conducted in the future. Second, most in-depth analyses of the impact of the air campaign are still classified.

SUMMARY

The experiences of the past fifty years highlight several themes associated with using air power to affect an enemy's will. First, the phenomenon of Munich has not repeated itself. The United States had significantly larger air forces than its adversaries in every conflict fough tsince World War II. Yet the possession of superior air power did not prevent the outbreak of war.

A second theme that should be noted is the initial targeting of industrial and military war making capability and the assumption that an enemy's will to wage war will be destroyed along with its capability to wage war. In each case however, destruction of the military/industrial base did not have the desired effect. Targeting in each of the wars was eventually refocused to directly impact the enemy's will to wage war. The objective became causing direct, intensive hurt to the enemy. In Japan and Germany, this refocusing took the form of firebombing cities. In Korea, cities were bombed, rice crops flooded, and use of nuclear weapons threatened. In Vietnam, massive, round-the-clock bombardment near major population centers inflicted maximum levels of civilian distress and disturbance.

There are many possible explanations for why the bombing efforts in each of these wars was refocused, but one stands out. It takes lots of time and lots of effort to destroy the industrial base of another country. Germany demonstrated that a highly industrialized economy can survive for a significant period of heavy bombing. Vietnam showed destruction is not any easier when the country is not highly industrialized.

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Workarounds can be made using masses of labor and the impact of living without the necessities of an industrialized society (such as electricity or motorized transportation) may not be severe.

The differences in the reactions of the adversaries is a third area worth noting. The devastation rained on the German population apparently had little effect on the government under Hitler. There was no indication of any attempt to end the war as long as Hitler remained alive. In Japan, by contrast, the composition of the government changed with the realization that the people living in the homeland could not be protected from the air attacks targeting them. A new government immediately sought ways to negotiate a peace and curtail the air attacks. The Korean government agreed to negotiations only after being convinced that its entire population was at risk from starvation or nuclear destruction. Similarly, the government of North Vietnam entered into final, serious negotiations only after its population was attacked and defenses against further air attacks were destroyed. Earlier rallying of public support to resist the bombing could not be duplicated when the bombing was aimed at the population itself. The attitude of the government is critical to the impact that air power can have on enemy will. If, as shown in Germany, the government is oblivious to the suffering of its people, then the target must be the government itself, not the population. If the government is effective in rallying its people to resist the bombing, as was done initially in North Vietnam, a bombing program against the population may never be effective. It is essential to know the priorities of the enemy before determining how best to attack his will.

Another similarity in each of the wars was that the campaign against the will of the enemy resulted in the heaviest bombing attacks of the wars. When targeting the will of the enemy, the attacks were massive, continuous, and relentless. In Japan, Korea, and Vietnam, it was the shock that resulted from the massive use of air power

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that convinced the enemy to negotiate. This may indicate that air power is more effective in these circumstances when used as a bludgeon rather than as a scalpel.

A final point is worth noting. Since World War II, American military and political leaders have been reluctant to cause high levels of civilian casualties and destruction. The political will of the United States to inflict civilian casualties was not always as strong as the enemy's will to absorb those casualties. In other words, the cost to American morale of using air power to produce massive casualties and devastation was frequently too high. Linebacker II may have demonstrated that it is possible to cause massive civilian distress without massive casualties, making direct targeting of enemy will a more palatable option.

SECTION 4

CONDITIONS FOR USING STRATEGIC AIR POWER
AGAINST THE WILL OF AN ENEMY

The previous sections looked at how the early air power theorists predicted strategic air power would be used, and some examples of how it has actually been used in the last fifty years. Using this as a background, this section will suggest conditions that must be considered if strategic air power is to affect the enemy will.

APPROPRIATE TARGETS MUST BE SELECTED

Selecting targets that have a sufficiently negative impact on enemy will is likely to be the most difficult condition for effectively using strategic air power. The early air power theorists identified civilian population centers and capital cities as the most likely targets of a strategic air campaign. Later American air power advocates advocated striking at enemy morale indirectly by striking directly at the industrial and military infrastructure. The previous section indicated that the enemy will was most affected by targeting the population directly rather that targeting the industrial base. Perhaps the next war should directly target enemy will at the outset. Experience also indicated that sometimes it is the government, not the population that must be targeted. It is conceivable that the will of the enemy can not be broken, that the population and leaders would rather continue fighting despite hardship than surrender. In an enemy whose identity is irrevocably tied to national, ethnic, or religious loyalties, it may be impossible to effect the will of the population or government. Determining how to affect enemy will requires understanding of what is most important to the enemy.

SUPPORT OF THE POLITICAL AND MILITARY LEADERSHIP MUST BE PRESENT

The support of the political and military leadership is vital to the use of strategic air power to affect enemy will. The early air power theorists assumed that the government would use any weapon available to achieve its objective and that war would be waged against civilians. Those assumptions are no longer universally valid. Limitations are now placed on striking many of the targets that would have an immediate impact on the morale of the enemy. If the government's objective is to affect the will of the enemy, and the target for achieving that objective is the civilian population or the enemy government itself, then the political and military leadership must be willing to provide its full support for the mission.

TECHNOLOGICAL CAPABILITY MUST MATCH MISSION REQUIREMENTS

Can air power do the job? Air power advocates past, and perhaps present, have tended to overestimate the capabilities of air power and underestimate the defenses against it. The technical capability to get to the target and strike it effectively is clearly a condition that must exist for air power to effect the enemy will. The range and stealth of current American aircraft can add the element of surprise. The number, size and accuracy of current munitions also provide a formidable threat. But as technology progresses, so do methods of countering the new technology. Americans want a weapon that works rapidly and effectively, damaging only what is intended. In each conflict, there will be a limit to the time allowed for strategic air power to produce results. Technology cannot lag behind requirements.

RESULTS MUST OUTWEIGH COSTS

The cost of any military action must always be weighed against the national objective to determine if the expenditure is worth the anticipated result. A primary

motivator of the early air power advocates was that strategic air power could reduce the number of soldiers killed in battles between armies. One consequence of using strategic air power, however, has been an increase in the number of civilian causalities. Another cost has been the increasingly expensive aircraft and support. The American leadership may not want to impose the causalities needed to affect the enemy will. It may also not want to endure the economic costs of supporting an air power campaign. The significance of the national objective must be the deciding factor as to what the country will pay to affect enemy will.

CONCLUSIONS

Air power theorists started out with the concept that air power could be used to directly affect the enemy's will to wage war. The key was to attack the government and the population directly with attacks on the capital and the cities. American theorists later decided that the best approach to winning a war was to attack the enemy's capability to wage war via his economic and industrial sectors which in turn would result in the collapse of his will to wage war. Both these approaches were tried in conflicts over the last fifty years with varying results.

It is difficult to provide concrete evidence that air power is the factor that defeated an enemy's will to wage war. Still, the premise that air power can effect the enemy's will is part of Air Force doctrine. It is incumbent that Air Force leaders understand conditions that must be considered if air power is to be used to affect the enemy's will.

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